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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,470	07/25/2001	Kevin R. Boyle	GB 010056	5132
65913	7590	03/05/2010		
NXP, B.V. NXP INTELLECTUAL PROPERTY & LICENSING M/S41-SJ 1109 MCKAY DRIVE SAN JOSE, CA 95131			EXAMINER PAN, YUWEN	
			ART UNIT 2618	PAPER NUMBER
			NOTIFICATION DATE 03/05/2010	DELIVERY MODE ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

[ip.department.us@nxp.com](mailto:ip.department.us@nxp.com)

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 07/08/09 has been entered.

***Response to Arguments***

2. Applicant's arguments filed 07/08/09 have been fully considered but they are not persuasive. Applicant argues that newly added limitation "form a capacitor, the conducting plate of the capacitor being fed via the support", overcomes the previous rejections. The examiner respectfully disagrees because Murch reference clearly teaches that a ground conductor (see figure 2 and item 6) and a conducting plate (item 9) forms a capacitor, wherein the conducting plate of the capacitor being feed via the support (item 8).

**DETAILED ACTION**

***Double Patenting***

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thornton*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 2-9, and 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 2-9 of copending Application No. 10/056,096. Although the conflicting claims are not identical, they are not patentably distinct from each other because the referenced copending application and the instant application are claiming common subject matter, as follows:

a wireless terminal comprising a ground conductor and a transceiver coupled to an antenna feed, wherein the antenna feed is coupled directly to the ground conductor via a capacitor formed by a conducting plate and a portion of the ground conductor.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2-4, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nghiem (US006114996A) in view of Murch et al (US005764190A).

Per claim 19, Nghiem discloses a wireless terminal (see figure 1) comprising a ground conductor (see figure 2 and item 212) and a transceiver (see column 6 and lines 58-65) coupled to an antenna feed (item 216). Nghiem does not teach that the antenna feed is capacitively coupled to the ground conductor by means of a conducting plate separate from and opposed to a portion of the ground conductor and the conducting plate being connected to a support that is at

At least partially located between the conducting plate and the ground conductor, the support located between the conducting plate and the ground conductor, the support being electrically insulated from the ground conductor. Murch teaches that the antenna feed is capacitively coupled to the ground conductor by means of a completed flat conducting plate separate (figure 2 and item 9) from and opposed to a portion of the ground conductor (see figure 2, item 6, see column 3 and lines 15-48) and the conducting plate being connected to a support (see figure 12, the portion of dielectric material) that is at least partially located between the conducting plate and the ground conductor, the support located between the conducting plate and the ground conductor, the support being electrically insulated (dielectric material such as glass does have the property of electrical insulation) from the ground conductor that a ground conductor (see figure 2 and item 6) and a conducting plate (item 9) forms a capacitor, wherein the conducting plate of the capacitor being feed via the support (item 8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Murch with Nghiem's antenna to offset a reactance component corresponding to the imaginary part of the impedance of the antenna.

Per claim 2, Murch further teaches that the antenna feed is coupled to the ground conductor housing via a capacitor (see figure 2).

Per claim 3, Murch further teaches that the capacitor is a parallel plate capacitor formed by a conducting plate and a portion of the ground conductor housing (see figure 1).

Per claim 4, Murch further teaches the antenna feed is coupled to the ground conductor housing by capacitance between an inductive element and the ground conductor housing (see figure 1).

7. Claims 5-9, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nghiem (US006114996A) and Murch et al (US005764190A) in further view of Engblom et al (US006002367A).

Per claim 7, combination of Nghiem and Murch does not teach that the ground conductor housing is a handset case. Engblom teaches that the ground conductor housing is a handset case (see figure 1, column 2 and lines 43-45). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the references to provide a antenna within a small-size mobile phone.

Per claim 8, Engblom further teaches that the ground conductor housing is a printed circuit ground plane (see column 1 and lines 40-55, conductive first plate as the conductive ground plane having two layers).

Per claim 9, Nghiem further teaches that a matching network is provided between the transceiver and the antenna (see column 6 and lines 1-15).

Per claim 5, Nghiem doesn't teach that a slot is provided in the ground conductor. Engblom teaches that a slot is provided in the ground conductor (see figure 10B and item 5,

column 2 and lines 52-53). It would have been obvious to one ordinary skill in the art at the time the invention was made to combine the teaching of Engblom with Nghiem's device such that it would improve the bandwidth and matching feature.

Per claim 6, Engblom further teaches that slot is parallel to the major axis of the terminal (see figure 1).

Per claim 20, Murch further teaches that the conducting plate is positioned relative to the ground conductor such that a major surface of the ground conductor is perpendicular to a major surface of the conducting plate (see figure 1 wherein the conductor plate 4 is perpendicular with the front side of handset case).

8. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Nghiem and Murch as applied to claim 19 above, and further in view of Lindmark (US006054953A).

Per claim 21, combination of Nghiem and Murch does not teach that the ground conductor housing is a handset case. Combination of Nghiem and Murch does not teach that the ground conductor includes a slot that extends along the length of the ground conductor and is perpendicular to the major surface of the conducting plate. Lindmark teaches that the ground conductor includes a slot that extends along the length of the ground conductor and is perpendicular to the major surface of the conducting plate (see figure 1 and item 4, 5a, 5b). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the references to reduce the size of antenna without losing the performance.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to YUWEN PAN whose telephone number is (571)272-7855. The examiner can normally be reached on 8-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Yuwen Pan/  
Primary Examiner, Art Unit 2618



U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

## EXAMINER'S CASE ACTION WORKSHEET

Copy (Ctrl+C)	Palm Transaction Code 1322 79613261809912470		Legal Instrument Examiner
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CHECK TYPE OF ACTION

DATE OF COUNT

<input checked="" type="checkbox"/> Non-Final Rejection	<input type="checkbox"/> Restriction/Election Only	<input type="checkbox"/> Final Rejection
<input type="checkbox"/> Ex Parte Quayle	<input type="checkbox"/> Allowance	<input type="checkbox"/> Advisory Action
<input type="checkbox"/> Examiner's Answer	<input type="checkbox"/> Reply Brief Noted	<input type="checkbox"/> Non-Entry of Reply Brief
<input type="checkbox"/> Defective Notice of Appeal	<input type="checkbox"/> Interference Disposal SPE _____ (Approval for Disposal)	<input type="checkbox"/> Suspension (Examiner-Initiated) SPE _____ (initial)
<input type="checkbox"/> Defective Appeal Brief	<input type="checkbox"/> SIR Disposal (use only after FAOM)	<input type="checkbox"/> Supplemental Examiner's Amendment
<input type="checkbox"/> Miscellaneous Office Letter (With Shortened Statutory Period Set)	<input type="checkbox"/> Notice of Non-Responsive Amendment (With One Month Time Period set)	<input type="checkbox"/> Miscellaneous Office Letter (No Response Period Set)
<input type="checkbox"/> Abandonment after BPAI Decision	<input type="checkbox"/> Supplemental Action	<input type="checkbox"/> Response to Rule 312 Amendment
<input type="checkbox"/> Letter Restarting Period for Response (e.g., Missing References)	<input type="checkbox"/> Interview Summary	<input type="checkbox"/> Authorization to Change Previous Office Action SPE: _____ (Initial)
<input type="checkbox"/> Abandonment	<input type="checkbox"/> Express Abandonment Date: _____	<input type="checkbox"/> Other

Examiner's Name: YUWEN PAN

AU: 2618



**Office Action Summary****Application No.**

09/912,470

**Applicant(s)**

BOYLE ET AL.

**Examiner**

YUWEN PAN

**Art Unit**

2618

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 08 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 2-9 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2-9 and 19-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Statement(s) (PTO/SF/23)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

